[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0077; Directorate Identifier 2013-CE-021-AD]

RIN 2120-AA64

Airworthiness Directives; Air Tractor, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede Airworthiness Directive (AD) 2010-17-18 R1, which applies to certain Air Tractor, Inc. Models AT-802 and AT-802A airplanes. AD 2010-17-18 R1 currently requires repetitively inspecting (using the eddy current method) the two outboard fastener holes in both of the wing main spar lower caps at the center splice joint for cracks; repairing or replacing any cracked spar; changing the safe life for certain serial number ranges; and sending the inspection results, only if cracks are found, to the FAA. Since we issued AD 2010-17-18 R1, we have determined that the safe life for the wing main spar lower caps should apply to all AT-802 and AT-802A airplanes regardless of configuration or operational use. This proposed AD would retain all actions of AD 2010-17-18 R1 and expand the applicability to include all serial numbers regardless of configuration or operational use. We are proposing this AD to correct the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.
 - Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m.,
 Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Air Tractor, Inc., P.O. Box 485, Olney, Texas 76374; telephone: (940) 564-5616; fax: (940) 564-5612; email: airmail@airtractor.com; Internet: www.airtractor.com. You may review copies of the referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating it in Docket No. FAA-2014-0077; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Andrew McAnaul, Aerospace Engineer, ASW-150 (c/o MIDO-43), 10100 Reunion Place, Suite 650, San Antonio, Texas 78216; phone: (210) 308-3365; fax: (210) 308-3370; email: andrew.mcanaul@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2014-0077; Directorate Identifier 2013-CE-021-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

On December 16, 2010, we issued AD 2010-17-18 R1, Amendment 39-16552 (75 FR 82219, December 30, 2010) ("AD 2010-17-18 R1"), for certain Air Tractor Models AT-802 and AT-802A airplanes. AD 2010-17-18 R1 requires repetitively inspecting (using the eddy current method) the two outboard fastener holes in both of the wing main spar lower caps at the center splice joint for cracks; repairing or replacing any cracked spar; changing the safe life for certain serial number ranges; and sending the inspection results, only if cracks are found, to the FAA.

AD 2010-17-18 R1 resulted from our evaluation of a comment from David Ligon, Air Tractor, and our determination that we should reduce the applicability from that already required by AD 2010-17-18, Amendment 39-16412 (75 FR 52255, August 25,

2010) ("AD 2010-17-18"), because the safe life limit already existed through other regulatory methods for airplanes equipped for agricultural dispersal beginning with serial number (SN) -0270.

Therefore, the Applicability section of AD 2010-17-18 R1 was changed to SNs -0001 through -0269 that are certificated in any category and engaged in agricultural dispersal operations. AD 2010-17-18 R1 included those airplanes that had been converted from firefighting to agricultural dispersal or airplanes that convert between firefighting and agricultural dispersal, not equipped with the factory-supplied computerized fire gate P/N 80540 and not engaged in only full-time firefighting.

We issued AD 2010-17-18 R1 to detect and correct cracks in the wing main spar lower cap at the center splice joint, which could result in failure of the spar cap and lead to wing separation and loss of control.

Actions Since AD 2010-17-18 R1 Was Issued

Since we issued AD 2010-17-18 R1, we have further determined that we do not have sufficient information to show what, if any, fatigue development and crack growth differences there are between the different operating environments. Airplanes without agricultural dispersal equipment, used in such operations as firefighting and patrol, all share the same wing main spar design and may develop the same fatigue cracks that are addressed in AD 2010-17-18 R1. Since we do not have information to determine that the operating environments for the agricultural, firefighting, and patrol airplanes affect the wing fatigue life differently, we consider it appropriate to treat all Models AT-802 and AT-802A airplanes similar regardless of how the airplane is configured or operated.

Relevant Service Information

Snow Engineering Co. has not issued any new service information to address the issue of this proposed AD. We retain the incorporation by reference of all the service information incorporated into AD 2010-17-18 R1 into this proposed AD. That service information describes procedures for addressing the unsafe condition.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would retain all requirements of AD 2010-17-18 R1 and add airplanes to the Applicability section as previously discussed.

Costs of Compliance

We estimate that this proposed AD affects 154 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD. However, the only difference in the costs presented below and the costs associated with AD 2010-17-18 R1 is the proposed addition of 33 airplanes, from 121 to 154, and the corresponding costs associated with those 33 airplanes:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Eddy current inspection	\$500 to \$800	Not Applicable	\$500 to \$800	\$77,000 to \$123,200
Spar cap replacement (two spars)	495 work-hours X \$85 per hour = \$42,075	\$39,100 (two spars)	\$81,175	\$12,500,950

We estimate the following costs to do any necessary repairs/modifications that would be required based on the results of the proposed inspections. We have no way of determining the number of aircraft that might need these repairs/modifications:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Center splice plate installation	185 work-hours X \$85 per hour = \$15,725	\$4,300	\$20,025
Extended splice block installation	70 work-hours X \$85 per hour = \$5,950	\$3,200	\$9,150
Cold-work lower spar cap fastener holes	16 work-hours X \$85 per hour =\$1,360	Not Applicable	\$1,360

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this proposed AD is 2120-0056. The paperwork cost associated with this proposed AD is detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this proposed AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at 800 Independence Ave., SW, Washington, DC 20591, ATTN: Information Collection Clearance Officer, AES-200.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII, Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, section 44701, "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that the proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
 - (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2010-17-18 R1, Amendment 39-16552 (75 FR 82219, December 30, 2010), and adding the following new AD:

Air Tractor, Inc.: Docket No. FAA-2014-0077; Directorate Identifier 2013-CE-021-AD.

(a) Comments Due Date

The FAA must receive comments on this AD action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD supersedes AD 2010-17-18 R1, Amendment 39-16552 (75 FR 82219, December 30, 2010) ("AD 2010-17-18 R1").

(c) Applicability

This AD applies to Air Tractor, Inc. Models AT-802 and AT-802A airplanes, all serial numbers that are certificated in any category.

(d) **Subject**

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 57: Wings.

(e) Unsafe Condition

This AD was prompted by our determination that there is a need to establish a safe life for the wing main spar lower caps on all airplanes regardless of configuration or operational use. We are issuing this AD to detect and correct cracks in the wing main spar lower cap at the center splice joint, which could result in failure of the spar cap and lead to wing separation and loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified in paragraphs (g) through (l) of this AD, including all subparagraphs, unless already done (compliance with AD 2010-17-18 R1).

(g) Actions for Airplanes Serial Numbers (SNs) -0001 through -0091

- (1) Eddy current inspect the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps for cracks at the compliance times specified in paragraphs (g)(1)(i) or (g)(1)(ii) of this AD. Do the inspections following Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002.
- (i) For airplanes previously affected by AD 2010-17-18 R1: Initially inspect upon reaching 1,700 hours time-in-service (TIS) or within the next 50 hours TIS after April 21, 2006 (the effective date retained from AD 2006-08-09, Amendment 39-14565 (71 FR 27794, May 12, 2006)), whichever occurs later. Repetitively thereafter inspect at intervals not to exceed 800 hours TIS unless you installed the center splice plate and extended 8-bolt splice blocks before September 9, 2010 (the effective date retained from AD 2010-17-18, Amendment 39-16412 (75 FR 52255, August 25, 2010)) ("AD 2010-17-18"), then repetitively inspect following the compliance times in table 1 of paragraph (g)(5) of this AD.

- (ii) For airplanes not previously affected by AD 2010-17-18 R1: Initially inspect upon reaching 1,700 hours TIS or within the next 50 hours TIS after the effective date of this AD, whichever occurs later. Repetitively thereafter inspect at intervals not to exceed 800 hours TIS unless you installed the center splice plate and extended 8-bolt splice blocks before the effective date of this AD, then repetitively inspect following the compliance times in table 2 of paragraph (g)(5) of this AD.
- (2) If any cracks are found as a result of any inspection required in paragraph (g)(1) of this AD, before further flight after the inspection where a crack was found, do the actions specified in paragraphs (g)(2)(i) or (g)(2)(ii) of this AD. If you repair your airplane following paragraph (g)(2)(i) of this AD before the airplane reaches a total of 3,200 hours TIS, you must do the eddy current inspections following the compliance times in table 1 and table 2 of paragraph (g)(5) of this AD, as applicable. If you repair your airplane following paragraph (g)(2)(i) of this AD at 3,200 hours TIS or after, this repair terminates the repetitive inspections required in this AD.
- (i) For cracks that can be removed by repair, install center splice plate, P/N 20997-2, and extended 8-bolt splice blocks, P/N 20985-1/-2; cold-work the lower spar cap fastener holes; and eddy current inspect the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps for cracks. This eddy current inspection is required as part of the modification and is separate from the inspections required in paragraph (g)(1) of this AD. Incorporating this repair modification extends the safe life of the wing main spar lower cap to a total of 8,000 hours TIS. Do the repair following Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2

- through 4, dated February 23, 2001; and page 5, dated May 3, 2002; Snow Engineering Co. Drawing Number 20995, Sheet 2, Rev. D., dated November 25, 2005; and Snow Engineering Co. Service Letter #240, dated September 30, 2004.
- (ii) For cracks that cannot be repaired by incorporating the repair modification specified in paragraph (g)(2)(i) of this AD, replace the lower spar caps and associated parts listed following paragraph (g)(3) of this AD.
- (3) Replace the wing main spar lower caps, the web plates, the center joint splice blocks and hardware, and the wing attach angles and hardware, and install the steel web splice plate at whichever of the compliance times specified in paragraphs (g)(3)(i), (g)(3)(ii), or (g)(3)(iii) of this AD that occurs first. If the wing main spar lower cap was replaced with P/N 21118-1/-2, the new spar safe life is 11,700 hours TIS. If the wing main spar lower cap was replaced with P/N 21083-1/-2 before September 9, 2010 (the effective date retained from AD 2010-17-18), the safe life for that P/N spar cap is 8,000 hours TIS until the wing main spar lower cap is replaced with P/N 21118-1/-2. This replacement terminates the inspections required in this AD. Do the replacement following Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Service Letter #80GG, revised December 21, 2005; and Snow Engineering Co. Drawing Number 20975, Sheet 4, Rev. A, dated January 7, 2009.
- (i) <u>For all airplanes</u>: Before further flight when cracks are found that cannot be repaired by incorporating the repair modification specified in paragraph (g)(2)(i) of this AD.
- (ii) For airplanes previously affected by AD 2010-17-18 R1: Before or when the airplane reaches the wing main spar lower cap safe life of a total of 4,100 hours TIS or within the next 50 hours TIS after September 9, 2010 (the effective date retained from AD 2010-17-18), whichever occurs later.

- (iii) <u>For airplanes not previously affected by AD 2010-17-18 R1</u>: Before or when the airplane reaches the wing main spar lower cap safe life of a total of 4,100 hours TIS or within the next 50 hours TIS after the effective date of this AD, whichever occurs later.
- (4) To extend the initial 4,100-hour TIS safe life of the wing main spar lower cap to a total of 8,000 hours TIS, you may incorporate the repair modification specified in paragraph (g)(2)(i) of this AD between 3,200 hours TIS and 4,100 hours TIS. This modification terminates the repetitive inspections required in paragraphs (g)(1)(i) and (g)(1)(ii) of this AD, unless you do the modification before the airplane reaches a total of 3,200 hours TIS to repair cracks.
- (5) If you modified your airplane to repair cracks before the airplane reached a total of 3,200 hours TIS, as required in paragraph (g)(2)(i) of this AD, or you previously modified your wing to extend the safe life but did not cold work the lower spar cap fastener holes, you must do the eddy current inspections required in paragraph (g)(1) of this AD following the compliance times specified in table 1 or table 2 of paragraph (g)(5) of this AD, as applicable.

Table 1 of paragraph (g)(5) — Modified Airplanes Previously Affected by AD 2010-17-18 R1 Eddy Current Inspection Compliance Times

Condition of the Airplane	Initially Inspect	Repetitively Thereafter Inspect at Intervals Not to Exceed
(i) If the airplane already has the center splice plate and extended 8-bolt splice blocks installed at or after 3,200 hours TIS but the fastener holes have not been cold worked. You may cold work the fastener holes at any time to terminate the repetitive inspection requirements of this paragraph.	When the airplane reaches a total of 2,400 hours TIS after the modification or within the next 100 days after September 9, 2010 (the effective date retained from AD 2010-17-18), whichever occurs later.	1,200 hours TIS until the 8,000 hours TIS spar replacement time.

(ii) Before reaching 3,200 hours TIS, the airplane had the center splice plate and extended 8-bolt splice blocks already installed but the fastener holes have not been cold worked.		When the airplane reaches a total of 2,400 hours TIS after the modification or within the next 100 days after September 9, 2010 (the effective date retained from AD 2010-17-18), whichever occurs later.	1,200 hours TIS. Upon reaching 4,800 hours TIS after the modification, repetitively thereafter inspect at intervals not to exceed 600 hours TIS until the 8,000 hours TIS spar replacement time.
hours TIS, the airplane had the center splice plate and extended 8-bolt splice next blocks installed and the fastener holes have been total of the mext in the mex		the airplane reaches a 4,800 hours TIS after diffication or within the 00 days after September 0 (the effective date d from AD 7-18), whichever occurs	600 hours TIS until the 8,000 hours TIS spar replacement time.

Table 2 of paragraph (g)(5) — Modified Airplanes Not Previously Affected by AD 2010-17-18 R1 Eddy Current Inspection Compliance Times

Condition of the Airplane	Initially Inspect	Repetitively Thereafter Inspect at Intervals Not to Exceed
(i) If the airplane already has the center splice plate and extended 8-bolt splice blocks installed at or after 3,200 hours TIS but the fastener holes have not been cold worked. You may cold work the fastener holes at any time to terminate the repetitive inspection requirements of this paragraph.	When the airplane reaches a total of 2,400 hours TIS after the modification or within the next 50 hours TIS after the effective date of this AD, whichever occurs later.	1,200 hours TIS until the 8,000 hours TIS spar replacement time.
(ii) Before reaching 3,200 hours TIS, the airplane had the center splice plate and extended 8-bolt splice blocks already installed but the fastener holes have not been cold worked.	When the airplane reaches a total of 2,400 hours TIS after the modification or within the next 50 hours TIS after the effective date of this AD, whichever occurs later.	1,200 hours TIS. Upon reaching 4,800 hours TIS after the modification, repetitively thereafter inspect at intervals not to exceed 600 hours TIS until the 8,000 hours TIS spar replacement time.

(iii) Before reaching 3,200 hours TIS, the airplane had the center splice plate and extended 8-bolt splice blocks installed and the fastener holes have been cold worked.

When the airplane reaches a total of 4,800 hours TIS after the modification or within the next 50 hours TIS after the effective date of this AD), whichever occurs later.

600 hours TIS until the 8,000 hours TIS spar replacement time.

(6) If you find any cracks during any inspection required by paragraph (g)(5) of this AD, before further flight, replace the lower spar caps and the associated parts following the procedures identified in paragraph (g)(3) of this AD.

(h) Actions for Airplanes SNs -0092 through -0101

- (1) Eddy current inspect the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps for cracks at the compliance times specified in paragraphs (h)(1)(i) or (h)(1)(ii) of this AD. Do the inspections following Snow Engineering Co. Service Letter #284, dated October 4, 2009; and Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002.
- (i) <u>For airplanes previously affected by AD 2010-17-18 R1</u>: Initially inspect upon reaching 1,700 hours TIS or within the next 50 hours TIS after September 9, 2010 (the effective date retained from AD 2010-17-18), whichever occurs later. Repetitively thereafter inspect at intervals not to exceed 800 hours TIS unless the center splice plate, P/N 20994-2, is installed, then repetitively inspect at intervals not to exceed 2,000 hours TIS.
- (ii) <u>For airplanes not previously affected by AD 2010-17-18 R1</u>: Initially inspect upon reaching 1,700 hours TIS or within the next 50 hours TIS after the effective date of this AD, whichever occurs later. Repetitively thereafter inspect at intervals not to exceed 800 hours TIS unless the center splice plate, P/N 20994-2, is installed, then repetitively inspect at intervals not to exceed 2,000 hours TIS.

- (2) If any cracks are found as a result of any inspection required by paragraph (h)(1) of this AD, before further flight after the inspection where a crack was found, do the actions specified in paragraphs (h)(2)(i) or (h)(2)(ii) of this AD.
- (i) For cracks that can be removed by repair, install the 9-bolt splice blocks; cold-work the lower spar cap fastener holes; install the center splice plate, P/N 20994-2, if not already installed; and eddy current inspect the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps for cracks. This eddy current inspection is required as part of the repair and is separate from the inspections required in paragraph (h)(1) of this AD. Incorporating this repair modification extends the safe life of the wing main spar lower cap to a total of 8,000 hours TIS and terminates the repetitive inspections required in this AD. Do the repair following Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002; Snow Engineering Co. Service Letter #281, dated August 1, 2009; and Snow Engineering Co. Drawing Number 20995, Sheet 3, dated November 25, 2005.
- (ii) For cracks that cannot be repaired by incorporating the repair modification specified in paragraph (h)(2)(i) of this AD, replace the lower spar caps and associated parts listed following paragraph (h)(3) of this AD.
- (3) Replace the wing main spar lower caps, the web plates, the center joint splice blocks and hardware, and the wing attach angles and hardware, and install the steel web splice plate at whichever of the compliance times specified in paragraphs (h)(3)(i), (h)(3)(ii), or (h)(3)(iii) of this AD that occurs first. If the wing main spar lower cap is replaced with P/N 21118-1/-2, the new spar safe life is 11,700 hours TIS. If the wing main spar lower cap was replaced with P/N 21083-1/-2 before September 9, 2010 (the effective date retained from AD 2010-17-18), the safe life for that P/N spar cap is 8,000

hours TIS until the wing main spar lower cap is replaced with P/N 21118-1/-2. This replacement terminates the inspections required in this AD. Do the replacement following Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Service Letter #80GG, revised December 21, 2005; and Snow Engineering Co. Drawing Number 20975, Sheet 4, Rev. A, dated January 7, 2009.

- (i) <u>For all airplanes</u>: Before further flight when cracks are found that cannot be repaired by incorporating the modification specified in paragraph (h)(2)(i) of this AD.
- (ii) <u>For airplanes previously affected by AD 2010-17-18 R1</u>: Before or when the airplane reaches the wing main spar lower cap safe life of a total of 4,100 hours TIS or within the next 50 hours TIS after September 9, 2010 (the effective date retained from AD 2010-17-18), whichever occurs later.
- (iii) <u>For airplanes not previously affected by AD 2010-17-18 R1</u>: Before or when the airplane reaches the wing main spar lower cap safe life of a total of 4,100 hours TIS or within the next 50 hours TIS after the effective date of this AD, whichever occurs later.
- (4) To extend the initial 4,100-hour TIS safe life of the wing main spar lower cap to a total of 8,000 hours TIS, before the airplane reaches a total of 4,100 hours TIS, as long as no cracks are found during any inspection required in paragraph (h)(1) of this AD, install center splice plate, P/N 20994-2, if not already installed as part of a repair; cold-work the lower spar cap fastener holes; and eddy current inspect the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps for cracks. This eddy current inspection is required as part of the modification and is separate from the inspections required in paragraph (h)(1) of this AD. After installing P/N 20994-2, eddy current inspect the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps for cracks repetitively at intervals not to exceed 2,000 hours TIS following the procedures specified in paragraph (h)(1) of this

- AD. Do the modification following Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002; Snow Engineering Co. Drawing Number 20975, Sheet 4, Rev. A., dated January 7, 2009; and Snow Engineering Co. Service Letter #245, dated April 25, 2005.
- (i) <u>For airplanes previously affected by AD 2010-17-18 R1</u>: As of September 9, 2010 (the effective date retained from AD 2010-17-18), if you have already exceeded the 4,100-hour TIS threshold for extending the safe life to 8,000 hours TIS, you may be eligible for an alternative method of compliance following paragraph (o) in this AD.
- (ii) <u>For airplanes not previously affected by AD 2010-17-18 R1</u>: As of the effective date of this AD, if you have already exceeded the 4,100-hour TIS threshold for extending the safe life to 8,000 hours TIS, you may be eligible for an alternative method of compliance following paragraph (o) in this AD.
- (5) If any cracks are found as a result of the eddy current inspection required by paragraph (h)(4) of this AD, do the actions specified in paragraphs (h)(5)(i) or (h)(5)(ii) of this AD.
- (i) For cracks that can be removed by repair, install the 9-bolt splice blocks, cold-work the lower spar cap fastener holes, and eddy current inspect the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps for cracks. This eddy current inspection is required as part of the modification and is separate from the inspections required in paragraph (h)(1) of this AD. Incorporating this repair modification terminates the repetitive inspections required in paragraph (h)(4) of this AD. Do the repair following Snow Engineering Co. Service Letter #284, dated October 4, 2009; and Snow Engineering Co. Process Specification #197, page 1, revised June 4,

2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002; Snow Engineering Co. Service Letter #281, dated August 1, 2009; and Snow Engineering Co. Drawing Number 20995, Sheet 3, dated November 25, 2005.

(ii) For cracks that cannot be repaired by incorporating the repair modification specified in paragraph (h)(5)(i) of this AD, replace the lower spar caps and associated parts listed following paragraph (h)(3) of this AD.

(i) Actions for Airplanes, SNs -0102 through -0178

(1) Eddy current inspect the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps for cracks at the compliance times specified in table 3 or table 4 of paragraph (i)(1) of this AD, as applicable. Do the inspections following Snow Engineering Co. Process Specification #197, page 1, revised June 4, 2002; pages 2 through 4, dated February 23, 2001; and page 5, dated May 3, 2002; Snow Engineering Co. Service Letter #245 dated April 25, 2005; Snow Engineering Co. Service Letter #284, dated October 4, 2009.

Table 3 of paragraph (i)(1) — Modified Airplanes Previously Affected by AD 2010-17-18

R1 Eddy Current Inspection Compliance Times

Condition of the Airplane	Initially Inspect	Repetitively Thereafter Inspect at Intervals Not to Exceed
(i) If the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps have not been cold worked.	When the airplane reaches a total of 5,500 hours TIS or within the next 50 hours TIS after September 9, 2010 (the effective date retained from AD 2010-17-18), whichever occurs later.	1,100 hours TIS until the 8,000 hours TIS spar replacement time.
(ii) If the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps have been cold worked.	When the airplane reaches a total of 5,500 hours TIS or within the next 50 hours TIS after September 9, 2010 (the effective date retained from AD 2010 17 18), whichever occurs later.	2,200 hours TIS until the 8,000 hours TIS spar replacement time.

Table 4 of paragraph (i)(1) — Modified Airplanes Not Previously Affected by AD 2010-17-18 R1Eddy Current Inspection Compliance Times

Condition of the Airplane	Initially Inspect	Repetitively Thereafter Inspect at Intervals Not to Exceed
(i) If the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps have not been cold worked.	When the airplane reaches a total of 5,500 hours TIS or within the next 50 hours TIS after the effective date of this AD, whichever occurs later.	1,100 hours TIS until the 8,000 hours TIS spar replacement time.
(ii) If the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps have been cold worked.	When the airplane reaches a total of 5,500 hours TIS or within the next 50 hours TIS after the effective date of this AD, whichever occurs later.	2,200 hours TIS until the 8,000 hours TIS spar replacement time.

- (2) If no cracks are found during the initial inspections required in paragraph (i)(1) of this AD, to use the longer repetitive inspection intervals specified in table 3 and table 4 of paragraph (i)(1) of this AD, as applicable, you may do the optional coldworking of the lower spar cap fastener holes following Snow Engineering Co. Service Letter #245, dated April 25, 2005.
- (3) If any cracks are found during any inspection required in paragraph (i)(1) of this AD, before further flight after the inspection where a crack is found, do the actions specified in paragraphs (i)(3)(i) or (i)(3)(ii) of this AD.
- (i) For cracks that can be removed by repair, install the 9-bolt splice blocks, cold-work the lower spar cap fastener holes, and eddy current inspect the center splice joint outboard two fastener holes in both the left and right wing main spar lower caps for cracks. This eddy current inspection is required as part of the repair modification and is separate from the inspections required in paragraph (i)(1) of this AD. This modification

terminates the repetitive inspections required in this AD. Do the repair following Snow Engineering Co. Service Letter #281, dated August 1, 2009; and Snow Engineering Co. Drawing Number 20995, Sheet 3, dated November 25, 2005.

- (ii) For cracks that cannot be repaired by doing the actions specified in paragraph (i)(3)(i) of this AD, replace the lower spar caps and associated parts listed following paragraph (i)(4) of this AD, including all subparagraphs.
- (4) Replace the wing main spar lower caps, the web plates, the center joint splice blocks and hardware, and the wing attach angles and hardware, and install the steel web splice plate at whichever of the compliance times specified in paragraphs (i)(4)(i), (i)(4)(ii), or (i)(4)(iii) of this AD that occurs first. This replacement terminates the inspections required in this AD, including all subparagraphs. After this replacement the new spar safe life is 11,700 hours TIS. Do the replacement following Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Service Letter #80GG, revised December 21, 2005; Snow Engineering Co. Drawing Number 20975, Sheet 4, Rev. A, dated January 7, 2009.
- (i) <u>For all airplanes</u>: Before further flight when cracks are found that cannot be repaired by doing the actions specified in paragraph (i)(3)(i) of this AD.
- (ii) <u>For airplanes previously affected by AD 2010-17-18 R1</u>: Before or when the airplane reaches the wing main spar lower cap safe life of a total of 8,000 hours TIS or within the next 50 hours TIS after September 9, 2010 (the effective date retained from AD 2010-17-18), whichever occurs later.
- (iii) <u>For airplanes not previously affected by AD 2010-17-18 R1</u>: Before or when the airplane reaches the wing main spar lower cap safe life of a total of 8,000 hours TIS or within the next 50 hours TIS after the effective date of this AD, whichever occurs later.

(j) Actions for Airplanes SNs -0179 through -0269

Replace the wing main spar lower caps, the web plates, the center joint splice blocks and hardware, and the wing attach angles and hardware, and install the steel web splice plate at the compliance times specified in paragraphs (j)(1) or (j)(2) of this AD. Do the replacement following Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Service Letter #80GG, revised December 21, 2005; and Snow Engineering Co. Drawing Number 20975, Sheet 4, Rev. A, dated January 7, 2009. After this replacement the new spar safe life is 11,700 hours TIS.

- (1) For airplanes previously affected by AD 2010-17-18 R1: Unless already done (compliance with AD 2010-17-18 R1), by the 8,000-hour TIS safe life, or within the next 50 hours TIS after September 9, 2010 (the effective date retained from AD 2010-17-18), whichever occurs later.
- (2) <u>For airplanes not previously affected by AD 2010-17-18 R1</u>: Unless already done, by the 8,000-hour TIS safe life, or within the next 50 hours TIS after the effective date of this AD, whichever occurs later.

(k) Actions for Airplanes S/Ns -0270 and Subsequent Not Affected by AD 2010-17-18

- (1) As of the effective date of this AD, this action establishes the safe life for the wing main spar to be 11,700 hours TIS.
- (2) Upon reaching the 11,700-hour TIS safe life or within the next 50 hours TIS after the effective date of this AD, whichever occurs later, replace the wing main spar lower caps, the web plates, the center joint splice blocks and hardware, and the wing attach angles and hardware, and install the steel web splice plate. After this replacement the subsequent new spar safe life is 11,700 hours TIS. Do the replacement following Snow Engineering Co. Service Letter #284, dated October 4, 2009; Snow Engineering Co. Service Letter #80GG, revised December 21, 2005; and Snow Engineering Co. Drawing Number 20975, Sheet 4, Rev. A, dated January 7, 2009.

(1) Reporting Requirement For All Airplanes

Report any crack from any inspection required in paragraphs (g) through (i) of this AD within 30 days after the cracks are found on the form in Figure 1 of this AD. Send your report to Andrew McAnaul, Aerospace Engineer, ASW-150 (c/o MIDO-43), 10100 Reunion Place, Suite 650, San Antonio, Texas 78216; phone: (210) 308-3365; fax: (210) 308-3370.

DOCKET NO. FAA-2014-0077 INSPECTION REPORT (REPORT ONLY IF CRACKS ARE FOUND) **General Information** 1. Inspection Performed By: 2. Phone: 3. Aircraft Model: 4. Aircraft Serial Number: 6. Aircraft Total Hours TIS: 5. Engine Model Number: 7. Wing Total Hours TIS: 8. Lower Spar Cap Hours TIS: **Previous Inspection/Repair History** 9. Has the lower spar cap been inspected If yes, an inspection has occurred: (eddy-current, dye penetrant, magnetic particle, or Date: ultrasound) before? Inspection Method: ☐ Yes □ No Lower Spar Cap TIS: Cracks found? ☐ Yes \square No 10. Has there been any major repair or alteration If yes, specify (Description and hours TIS): performed to the spar cap? ☐ Yes □ No **Inspection for Docket No. FAA-2014-0077** 11. Date of AD inspection: 11a. Cracks found: ☐ Right Hand Inspection Results: ☐ Left Hand 11b. Crack Length: 11c. Does drilling hole to next larger size remove all traces of the crack(s)? Location: ☐ Yes \square No 12d. Corrective Action Taken:

Send report (only if you find any cracks as a result of the inspection for AD 2010-17-18 R1) to: Andrew McAnaul, Aerospace Engineer, ASW-150 (c/o MIDO-43), 10100 Reunion Place, Suite 650, San Antonio, Texas 78216; phone: (210) 308-3365; fax: (210) 308-3370

(m) Special Flight Permit

Special flight permits are permitted with the following limitations:

- (1) Only operate in day visual flight rules (VFR).
- (2) Ensure that the hopper is empty.
- (3) Limit airspeed to 135 miles per hour (mph) indicated airspeed (IAS).
- (4) Avoid any unnecessary g-forces.
- (5) Avoid areas of turbulence.
- (6) Plan the flight to follow the most direct route.

(n) Paperwork Reduction Act Burden Statement

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(o) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Fort Worth Airplane Certification Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal

inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (p) of this AD.

- (2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.
 - (3) AMOCs approved for AD 2010-17-18 are approved as AMOCs for this AD.

(p) **Related Information**

- (1) For more information about this AD, contact Andrew McAnaul, Aerospace Engineer, ASW-150 (c/o MIDO-43), 10100 Reunion Place, Suite 650, San Antonio, Texas 78216; phone: (210) 308-3365; fax: (210) 308-3370; email: andrew.mcanaul@faa.gov.
- (2) For service information identified in this AD, contact Air Tractor, Inc., P.O. Box 485, Olney, Texas 76374; telephone: (940) 564-5616; fax: (940) 564-5612; email: airmail@airtractor.com; Internet: www.airtractor.com. You may review copies of the referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call 816-329-4148.

Issued in Kansas City, Missouri, on February 5, 2014.

Earl Lawrence, Manager, Small Airplane Directorate, Aircraft Certification Service.

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